REMARKS

Claims 7, 8 and 10 are amended herein. Claims 1-19 are pending. No new matter is added as a result of the claim amendments.

Claims 14 and 15 are allowed. Claims 2, 5, 6, 8 and 9 are indicated as being allowable if rewritten in independent form to include all the limitations of the base claim and any intervening claims. The Applicants would like to thank the Examiner for indicating the allowability of Claims 2, 5, 6, 8, 9, 14 and 15.

112 Rejection

Claim 8 is rejected under 35 U.S.C. § 112, second paragraph. Claim 8 is amended to overcome the 35 U.S.C. § 112, second paragraph, rejection.

102 Rejections

Claims 16 and 17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Byrd (US 4,763,333). The Applicants have reviewed the cited reference and respectfully assert that Byrd does not show or suggest the embodiments of the present invention recited in Claims 16 and 17.

Claim 16 recites that an embodiment of the present invention is directed to "A computer system comprising: a processor; ... and a second memory accessible only to said processor, wherein power to said second memory is controlled separately from power to said processor and to said first memory, wherein power is maintained to said second memory when power is removed from said processor, said second memory for maintaining internal context of said processor

when power is removed from said processor." Claim 17 is dependent on Claim 16 and recites additional limitations.

Applicants respectfully submit that Byrd does not show or suggest the limitations cited above. Applicants respectfully note that the FIFO RAM 16 of Byrd does not read on the limitations cited above because it is not accessible only to the CPU (for example, see column 6, lines 33-36, and column 8, lines 23-43, of Byrd).

Applicants also respectfully note that AUX ROM 19 of Byrd does not read on the limitations cited above because ROM 19 is a read-only memory unit, and as such cannot store the internal context of the CPU as recited in Claim 16. For the same reason, ROM 15 of Byrd does not read on the limitations cited above.

Furthermore, Applicants respectfully note that AUX RAM 20 of Byrd does not read on the limitations cited above because it is not accessible only to the CPU as recited in Claim 16 (for example, see column 7, lines 37-39 of Byrd).

Finally, Applicants respectfully note that RAM 14 of Byrd does not read on the limitations cited above because it is not accessible only to the CPU as recited in Claim 16 (see column 5, lines 63-64 of Byrd, for example). Also, RAM 14 of Byrd does not store the internal the internal context of the CPU, nor is RAM 14 powered separately from the CPU, as recited in Claim 16.

Therefore, Applicants respectfully submit that Byrd does not show or suggest the present claimed invention as recited by independent Claim 16, and

that Claim 16 is in condition for allowance. As such, Applicants also respectfully submit that Byrd does not show or suggest the additional claimed features of the present invention as recited in Claim 17 dependent on Claim 16, and that Claim 17 is also in condition for allowance as being dependent on an allowable base claim. Therefore, the Applicants respectfully assert that the basis for rejecting Claims 16 and 17 under 35 U.S.C. § 102(b) is traversed.

103 Rejections

Claims 1, 3, 4 and 12

Claims 1, 3, 4 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' Admitted Prior Art (AAPA) in view of Sasscer (US 4,523,206). The Applicants have reviewed the cited references and respectfully assert that AAPA and Sasscer, alone or in combination, do not show or suggest the embodiments of the present invention recited in Claims 1, 3, 4 and 12.

Independent Claim 1 recites that an embodiment of the present invention is directed to a method comprising "preserving said internal context against loss due to removal of electrical power from said processor, said internal context preserved in a private memory accessible only by said processor and powered independently of said processor." Claims 3 and 4 are dependent on Claim 1 and recite additional limitations.

Independent Claim 12 recites that an embodiment of the present invention is directed to a digital computer system comprising "a private memory accessible only by said CPU; and a power supply, said power supply for supplying power to said CPU and said private memory independent of one another."

Applicants respectfully agree with the statement in the instant Office Action that AAPA does not teach preserving the internal context of the processor in a private memory accessible only by the processor and powered independently of the processor. Applicants respectfully disagree that these limitations are taught by Sasscer.

According to the instant Office Action, the cache memory is interpreted by the Examiner as a memory accessible only to the processor. However, according to Sasscer, the cache memory is not accessible only to the processor. According to Sasscer, information can be transferred from a disk drive device 104 to the cache memory 106 which then sends the information to a requesting host 102 (for example, see column 6, lines 3-11, of Sasscer). Therefore, Applicants respectfully submit that Sasscer, alone or in combination with AAPA, does not show or suggest preserving the internal context of the processor in a private memory accessible only by the processor and powered independently of the processor as recited in the claims.

Therefore, Applicants respectfully submit that AAPA and Sasscer, alone or in combination, do not show or suggest the present claimed invention as recited by independent Claims 1 and 12, and that these claims are in condition for allowance. As such, Applicants also respectfully submit that AAPA and Sasscer, alone or in combination, do not show or suggest the additional claimed features of the present invention as recited in Claims 3 and 4 dependent on Claim 1, and that Claims 3 and 4 are also in condition for allowance as being dependent on an

allowable base claim. Therefore, the Applicants respectfully assert that the basis for rejecting Claims 1, 3, 4 and 12 under 35 U.S.C. § 103(a) is traversed.

Claim 13

Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA and Sasscer and further in view of Song et al. ("Song;" US 5,991,531). The Applicants have reviewed the cited references and respectfully assert that AAPA, Sasscer and Song, alone or in combination, do not show or suggest the embodiments of the present invention recited in Claim 13.

Claim 13 is dependent on Claim 12. As discussed above, Applicants respectfully submit that Sasscer and AAPA, alone or in combination, do not show or suggest "a private memory accessible only by said CPU; and a power supply, said power supply for supplying power to said CPU and said private memory independent of one another" as recited in Claim 12.

Song does not overcome the shortcomings of Sasscer and AAPA. Specifically, Applicants respectfully submit that Song (alone or in combination with Sasscer and AAPA) does not show or suggest "a private memory accessible only by said CPU" as recited in Claim 12. Therefore, Applicants respectfully submit that Sasscer, AAPA and Song, alone or in combination, also do not show or suggest the additional claimed features of the present invention as recited in Claim 13 dependent on Claim 12, and that Claim 13 is in condition for allowance as being dependent on an allowable base claim. Therefore, the Applicants respectfully assert that the basis for rejecting Claim 13 under 35 U.S.C. § 103(a) is traversed.

Claim 7

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakai (US 6,266,776) in view of AAPA. The Applicants have reviewed the cited references and respectfully assert that Sakai and AAPA, alone or in combination, do not show or suggest the embodiments of the present invention recited in Claim 7.

Independent Claim 7 recites that an embodiment of the present invention is directed to a processing system comprising "a central processing unit (CPU) for processing instructions of an application, said central processing unit including internal registers; a first memory; a second memory accessible only to said CPU; a power supply for supplying power separately to said CPU and said first and second memories, wherein said CPU, said first memory and said second memory each reside in separate power domains."

Applicants respectfully submit that Sakai does not show or suggest a memory that is only accessible by a CPU. Applicants also respectfully submit that AAPA does not overcome the shortcomings of Sakai. Applicants respectfully agree with the statement in the instant Office Action that AAPA does not teach preserving the internal context of the processor in a private memory accessible only by the processor and powered independently of the processor. Therefore, Applicants respectfully submit that Sakai and AAPA, alone or in combination, do not show or suggest a memory that is accessible only by a CPU.

Accordingly, Applicants respectfully submit that Sakai and AAPA, alone or in combination, do not show or suggest the present claimed invention as recited by Claim 7, that the basis for rejecting Claim 7 under 35 U.S.C. § 103(a) is traversed. Therefore, the Applicants respectfully assert Claim 7 is in condition for allowance.

Claims 10 and 11

Claims 10 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakai and AAPA and further in view of Tanenbaum ("Structured Computer Organization"). The Applicants have reviewed the cited references and respectfully assert that Sakai, AAPA and Tanenbaum, alone or in combination, do not show or suggest the embodiments of the present invention recited in Claims 10 and 11.

Independent Claim 10 recites that an embodiment of the present invention is directed to a processing system that comprises "a central processing unit for processing instructions, said central processing unit including internal registers; a first memory; a second memory accessible only to said central processing unit" and "a power supply for supplying power separately to said CPU and said first and second memories, wherein said CPU, said first memory and said second memory each reside in separate power domains." Claim 11 is dependent on Claim 10 and recites additional limitations.

Applicants respectfully submit that Sakai does not show or suggest a memory that is accessible that is only accessible by a CPU as recited in independent Claim 10.

Applicants also respectfully submit that AAPA does not overcome the shortcomings of Sakai. Applicants respectfully agree with the statement in the instant Office Action that AAPA does not teach preserving the internal context of the processor in a private memory accessible only by the processor and powered independently of the processor. Therefore, Applicants respectfully submit that Sakai and AAPA, alone or in combination, do not show or suggest a memory that is accessible only by a CPU as recited in independent Claim 10.

Tanenbaum does not overcome the shortcomings of Sakai and AAPA. Tanenbaum, alone or in combination with Sakai and AAPA, also does not show or suggest a memory that is accessible only by a CPU as recited in independent Claim 10.

Therefore, Applicants respectfully submit that Sakai, AAPA and Tanenbaum, alone or in combination, do not show or suggest the present claimed invention as recited by independent Claim 10, and that Claim 10 is in condition for allowance. As such, Applicants also respectfully submit that Sakai, AAPA and Tanenbaum, alone or in combination, do not show or suggest the additional claimed features of the present invention as recited in Claim 11 dependent on Claim 10, and that Claim 11 is also in condition for allowance as being dependent on an allowable base claim. Therefore, the Applicants respectfully assert that the basis for rejecting Claims 10 and 11 under 35 U.S.C. § 103(a) is traversed.

Claims 18 and 19

Claims 18 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Byrd in view of Sasscer. The Applicants have reviewed the cited references and respectfully assert that Byrd and Sasscer, alone or in combination, do not show or suggest the embodiments of the present invention recited in Claims 18 and 19.

Claims 18 and 19 are dependent on independent Claim 16 and recite additional limitations. As presented above, Applicants respectfully submit that Byrd does not show or suggest "A computer system comprising: a processor; ... and a second memory accessible only to said processor, wherein power to said second memory is controlled separately from power to said processor and to said first memory, wherein power is maintained to said second memory when power is removed from said processor, said second memory for maintaining internal context of said processor when power is removed from said processor" as recited in Claim 16.

Applicants further submit that Sasscer does not overcome the shortcomings of Byrd. Specifically, Applicants respectfully submit that Sasscer, alone or in combination with Byrd, does not show or suggest preserving the internal context of the processor in a private memory accessible only by the processor and powered independently of the processor as recited in Claim 16.

Therefore, Applicants respectfully submit that Byrd and Sasscer, alone or in combination, do not show or suggest the additional claimed features of the present invention as recited in Claim 18 and 19 dependent on Claim 16, and that

Claims 18 and 19 are in condition for allowance as being dependent on an allowable base claim. Therefore, the Applicants respectfully assert that the basis for rejecting Claims 18 and 19 under 35 U.S.C. § 103(a) is traversed.

Conclusions

Based on the remarks and amendments presented above, Applicants request allowance of the present Application.

Based on the arguments presented above, Applicants respectfully assert that Claims 1-19 overcome the rejections of record and, therefore, Applicants respectfully solicit allowance of these Claims.

Applicants have reviewed the references that were cited but not relied upon. Applicants respectfully assert that the present claimed invention overcomes these references: US 5,036,455; US 5,617,572; and US 5,765,001.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,
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